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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,548	09/25/2003	Peter Groz	HSJ920030143US2	5489

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EXAMINER
TON, DAVID

ART UNIT	PAPER NUMBER
2138	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/670,548	GROZ, PETER
	Examiner	Art Unit
	David Ton	2138

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 March 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

1.   Applicants Amendment filed on 03/03/2006 has been reviewed.

2.   Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

3.   Yu (6,263,303) was cited as prior art in a previous Office Action.

4.   Claims 1-20 are presented for examination.

Claim Rejections - 35 USC '103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-20 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Yu et al. (Yu) patent no. 6,263,303, in view of Lim et al. (Lim), in the IEEE article "Direct Access Storage Device (DASD) Modeling and Validation.

7.   As to claim 1, Yu teaches the invention substantially as claimed, including a computer program product in a computer usable medium [claim 13] for performing testing of a simulated device [digital hardware system, col. 1 lines 4-6] in a testing simulation environment [col. 1 lines 9-20], said method comprising:

providing a software representation [module 16 of Fig. 2] of a plurality of hardware components within said simulated direct access storage device [see Fig. 7A];

providing a control program module [core 18 of Fig. 2] within said testing simulation environment, wherein said control program module interacts with said software representation of said plurality of hardware components [see claim 35];

providing a testing program [see program flowchart of Fig. 5D] for interacting with said control program module and said software representation of said plurality of hardware components;

in response to detection of an occurrence of a pre-selected event [event triggered 100 of Fig. 5C] within said simulated direct access storage device, sending [see EVENT(2) of Fig. 2] one or more codes [claim 31] from said testing program to said software representation of said plurality of hardware components [see claim 3]; and

determining whether or not a response by said control program module to said one or more codes is correct [col. 3 lines 10-13].

However, Yu does not explicitly teach the simulated device is a simulated direct access storage device.

Lim teaches modeling and simulation of a DASD based on the SIMAN discret-event simulation language [see section 4].

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to apply the behavior simulation for simulating a digital hardware system taught by Yu for simulation a direct access storage device as

taught by Lim. This modification would have been obvious and a person having ordinary skill in the art would have been motivated to do so because it would enhance the application of Yu invention.

8.   As to claim 2, Yu teaches the hardware component comprises a microprocessor [col. 1 lines 9-20].

9.   As to claims 3-4, Lim teaches codes represent software event [section 4].

10.   As to claim 5, Yu teaches the testing program is a behavior simulation program [col. Col. 1 lines 20-37].

11.   As to claim 6, Yu teaches codes comprise one or more predefined stimuli [see claim 16].

12.   As to claim 7, Yu teaches the testing program simulates the hardware components processing the codes in real-time [see claim 25].

13.   As to claim 8, Yu teaches the control program-under-development [col. 1 lines 9-20].

14.   As to claims 9-10, Yu teaches one or more code target one or more elements of the control program module and hardware components [claim 41].

15.   As to claim 11, Yu teaches the pre-selected event return a value [see elements 128-130 of Fig. 5D].

16.   As to claim 12, Yu teaches the pre-selected event comprises a memory register [memory device of claim 22].

17.   As to claim 13, Yu teaches sending comprises writing a value to a memory register in the component [step 130 of Fig. 5D].

18.   As to claim 14, Lim teaches recording the response [see EXHIBIT 3].

19.   As to claim 15, codes stored in a testing event script file is well known in the art for running a segment executable program [see patent no. 6,106,298 or 6,208,955 cited on PTO 892].

20.   As to claim 16, Lim teaches reporting the response [see EXHIBIT 3].

21.   As to claim 17, Yu teaches pre-selected event includes the passage of a predefined length of time [delay stimulus of claim 22].

22.   As to claim 18, Ackerman teaches a return value not matching a predefined value [see EXHIBIT 4].

23.   As to claim 19, Yu teaches the pre-selected event comprises the control program module executing a pre-selected instruction [see fig. 5D].

24.   As to claim 20, it is a combination of claims 1-19 above; therefore, it is rejected under the same rationale.

Response to Remarks

25.   Applicant argued that the prior arts do not teach "providing a software representation of a plurality of hardware components within said simulated direct access storage device".

In response to Applicant's argument, in the newly cited art, Lim teaches a software representation of a plurality of hardware components within a DASD device using SIMAN discrete-event simulation language in section 4. It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to apply the behavior simulation for simulating a digital hardware system taught by Yu for simulation a direct access storage device as taught by Lim. This modification would have been obvious and a person having ordinary skill in the art would have been motivated to do so because it would enhance the application of Yu invention.

Conclusion

26.   The prior art of record and not relied upon is considered pertinent to applicant's disclosure.

27.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Ton whose telephone number is (571) 272-3828. The examiner can normally be reached on M-Th from 5:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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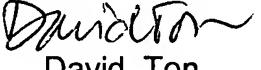
David Ton
Primary Examiner
Art Unit 2138